

AUTHOR: Sokolov, A.G. SOV-77-3-5-21/21

TITLE: The Development of Reversible Cine-Film Under Field Conditions (Proyavleniye obratimoy kinoplenki v polevykh usloviyakh)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 5, pp 398-400 (USSR)

ABSTRACT: The author gives the prescriptions for the composition of developing solutions and detailed instructions for the developing of reversible cine-film under field conditions, where exact laboratory processing is impossible.

1. Photographic film--Processing

Card 1/1

USCOMM-DC-55610

KUZNETSOV, Rostislav Mikhaylovich; SOKOLOV, Andrey Georgiyevich;
ASHURKOV, Ye.B., nauchnyy red.; SHAURAK, Ye.N., red.; KAMOLOVA, V.M.,
tekhn.red.; LEVOCHKINA, L.I., tekhn.red.

[Electric engineering for ships and the assembling of electric
equipment of ships] Sudovaia elektrotehnika i montazh sudovogo
elektrooborudovaniia. Leningrad, Gos. soiuznoe izd-vo sudostroit.
promyshl., 1957. 269 p. (MIRA 11:1)
(Electricity on ships)

SOKOLOV, Aleksandr Georgiyevich; VILKOV, G.N., red. izd-va;
SHERSTNEVA, N.V., tekhn. red.

[Transmission line towers] Opyry linii peredach; raschet i
konstruirovaniye. Moskva, Gos. izd-vo lit-ry po stroit.,
arkhit. i stroit. materialam, 1961. 170 p. (MIRA 15:2)
(Electric lines—Poles) (Radio—Antennas)
(Television—Antennas)

KALLER, Moisey Yakovlevich; SNARSKIY, A.A., kand. tekhn. nauk, re-
tsenzent; SOKOLOV, A.G., inzh., red.; KHITROVA, N.A., tekhn.
red.

[Theory of electrical networks] Teoriia elektricheskikh tsepej.
Izd.2., perer. i dop. Moskva, Transzheldorizdat, 1962. 494 p.
(MIRA 15:12)

(Electric networks)

ROZENBERG, N.M., inzh.; SOROKODUMOVA, N.I., inzh.; TELESHEVSKIY, B.Ia.,
inzh., retsenzent; SOKOLOV, A.G., inzh., red.; MEDVEDEVA,
M.A., tekhn. red.

[Television and its use in railroad transportation] Televide-
nie i ego primenie na zheleznodorozhnom transporte. Moskva,
Transzheldorizdat, 1963. 186 p. (MIRA 16:10)

(Railroads--Communication systems)
(Industrial television)

SOKOLOV, A.G.

Intake properties of absorption wells having a vacuum at
well heads. Trudy Giprovostoknefti no.3:322-326 '61.
(MIRA 16:7)
(Petroleum waste)

SOKOLOV, A.G.

Some characteristics of the discharge of waste waters into disposal
wells in the Zol'nyy oil field. Trudy Giprovostoknefti no.4:
176-184 '61. (MIRA 16:8)
(Kuybyshev Province--Petroleum waste)

SHIN, P.V., agronom po zashchite rasteniy; BYL'KIN, V.A., agronom po zashchity rasteniy; ROSTOVTSEVA, T.V.; SOKOLOV, A.G.

For the good of man! Zashch. rast. ot vred. i bol. 6 no.9:
1-2 S '61. (MIRA 16:5)

1. Sekretar' partorganizatsii Kolomenskogo otdeleniya Vsesoyuznogo ob'yedineniya Soveta Ministrov SSSR po prodazhe sel'skokhozyaystvennoy tekhniki, zapasnykh chastei, mineral'nykh udobreniy i drugikh material'no-tehnicheskikh sredstv, organizatsii remonta i ispol'zovaniya mashin v kolkhozakh i sovkhozakh (for Byl'kin).
2. Nachal'nik Golovnogo spetsial'nogo konstruktorskogo byuro (for Rostovtseva).
3. Rayonnnyy inzhener Moskovskoy oblastnoy stantsii zashchity zelenykh nasazhdeniy, Noginskiy rayon (for Sokolov).

(Plants, Protection of)

KARELIN, Ya. A.; SOKOLOV, A. G.

Quality of the waters injected into producing reservoirs.
Neft, khoz. 41 no. 12:40-45 D '63. (MIRA 17:6)

GANDIN, Boris Davydovich, inzh.; MAGARSHAK, Boris Grigor'yevich,
inzh.; SOKLOV, Andrey Grigor'yevich, inzh.; KITAYENKO, G.I.
kand. tekhn. nauk, nauchn. red.; SACHUK, N.A., red.

[A] on the repair of electric equipment on ships]
Spravochnik po remontu sudovogo elektrooborudovaniia.
Leningrad, Sudostroenie. No.1. 1964. 240 p.
(MIRA 17:12)

DAVYDOVSKIY, Vladimir Nikhaylovich; NOVIKOV, Mikhail Nikolayevich
(deceased); SOKOLOV, A.G., inzn., rei.

[Telephone apparatus and special railroad switchboards]
Telefonnye apparaty i spetsial'nye zheleznyodorozhnye kom-
mutatory. Moskva, Transport, 1965. 206 p. (MIRA 16:1)

NOVIKOV, Vasilij Ivanovič; GORSHOV, A. G. POM.

[Long-distance communications] Dallinaja svjazi. 4.
perer. i dop. Izd. Moskva, Transport, 1965. 228 p.
(NIIA 1813)

SOKOLOV, A.G.

Wood rosin industry in the U.S.A. Gidroliz. i lesokhim. prem. 9
no.7:30-32 '56. (MIRA 12:3)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(United States--Gums and resins)

Sokolov, A.G.
USSR/Chemical Technology - Chemical Products and Their I-9
Application. Wood Chemistry Products. Hydrolysis Industry

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2661
Author : Sokolov, A.G.
Inst :
Title : Development of Naval Stores Production in the United
States.

Orig Pub : Gidroliznaya i lesokhim. prom-st', 1957, No 5, 30-31

Abstract : A review.

Bibliography 7 references.

Card 1/1

SOKOLOV, A.G.; BARDYSHEV, I.I.

Composition of the acid part of colophony from oleoresin of the
Scotch pine. Gidroliz. i lesokhim. prom. 11 no.2:5-7 '58.

(MIRA 11:3)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Tar acids--Analysis) (Oleoresins--Analysis)

SOKOLOV, A. G.

Thermal isomerization of some tar acids contained in the oleoresin
of common pine. Sbor. trud. TSNILKHI no.13:119-128 '59.
c, (MIRA 13:10)

(Tar acids) (Oleoresins)

SOKOLOV, A.G.

Determining dehydroabietic, dihydroabietic, and tetrahydroabietic acids content of resins. Sbor. trud. TSNILKHI no. 14:98-105 '61.
(MIRA 16:4)

(Resin acids)

(Gums and resins)

SOKOLOV, A. G.

LESSIG, Yevgeniy Nikolayevich; LILEYEV, Aleksandr Fedorovich; SOKOLOV,
Aleksandr Georgiyevich; ZELYATROV, V.N., nauchnyy redaktor;
ROSTOVTSEVA, M.P., redaktor izdatel'stva; TOKER, A.M., tekhnicheskiy redaktor

[Sheet steel structural elements] Stal'nye listovye konstruktsii.
Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 479 p.
(Sheet steel) (MLRA 9:12)

SOKOLOV, A.G. (Moskva)

Calculating masts by the method of given moment curves. Stroi.
mekh. i rasch.soor. 1 no.2:22-25 '59. (MIRA 12:4)
(Elastic rods and wires)

SOKOLOV, A.G.

Determining the most efficient angle of inclination of struts
in supports. Mat. po stal'. konstr. no.4:58-84 '59.
(MIRA 13:8)
(Structures, Theory of)

SOKOLOV, A.G.

Limited states of supports. Mat.po stal'.konstr. no.5:120-133
'59. (MIRA 13:8)
(Wind pressure) (Structures, Theory of)

123100
26,2142

45252

S/787/62/000/006/001/001

AUTHOR: Sokolov, A.G.

TITLE: Determination of membrane stresses from the weight of the liquid and the proper weight of the shell.

SOURCE: Moscow. Gosudarstvennyy institut po proyektirovaniyu, issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov. Materialy po metallicheskim konstruktsiyam. no. 6, 1962, 167-176.

TEXT: The paper provides an analytical solution for the determination of the distribution of membrane stresses in a spherical reservoir supported uniformly along a horizontal circle, as a function of the weight of the liquid contained in the reservoir and the proper weight of the reservoir shell. The solution developed applies to shell portions both above and below the support ring. It does not examine the problem of the local stresses which derive from the condition of the continuity of the deformations in the support-ring zone. The analysis employs elementary weight considerations and analyzes separately the case (1) liquid level below, and (2) liquid level above the support ring. It is readily apparent that the normal component of the support reaction is maximal for a completely filled reservoir (all further analysis is based on a full reservoir). Without entering into the problem

C Card 1/2

VAKHURKIN, V.M.; GLADSHTEYN, L.I.; KARMILOV, S.S.; KLIMOV, S.A.;
LEVITANSKIY, I.V.; MALININ, B.N.; NOSOV, A.K.; PAL'M,
Yu.A.; POLYAK, V.S.; POPOV, G.D.; RASSUDOV, V.M.;
KRASYUKOV, V.P.; SOKOLOV, A.G.; Prinimali uchastiye:
GORBATSKIY, Ye.I.; MATVEYEV, S.S.; STRELETSKIY, N.S.,
prof., retsentent; MUKHANOV, K.K., dots., retsentent;
BOLOTINA, A.V., red.; MIKHEYEVA, A.A., tekhn. red.

[Light-weight supporting metal structures] Oblegchennye
nesushchie metallicheskie konstruktsii. Moskva, Gos-
stroizdat, 1963. 282 p. (MIRA 17:2)

1. ~~U.S. Embassy, Moscow~~

2. ~~U.S. Embassy, Moscow~~

3. ~~U.S. Embassy, Moscow~~

SOKOLOV, A.I., inzh.

Container type cars for narrow-gauge railroads. Torf.prom. 39
no.3:9-10 '62. (MIRA 15:4)

1. Toplivno-transportnyy tsekh Yaroslavskoy gosudarstvennoy
rayonnoy elektrostrantsii.
(Railroads--Freight cars) (Railroads, Narrow gauge)

SOKOLOV, A.I.

Work of young poultry farmers and its relation to instruction.
Politekh. obuch. no.6:25-27 Je '58. (MIRA 11:6)

1. Semiletnyaya shkola №.24 khutora Miguty Kanevskogo rayona
Krasnodarskogo kraya.
(Ducks)

NESHCHADIM, A.G., inzh.; KURDYUMOV, V.N., inzh.; Prinimali uchastiye:
YEDEMSKIY, P.M.; FADEYEVA, K.M.; SOKOLOV, A.I.; PETROVA, A.I.;
MIKHAYLOVA, N.M.; SERGEYEVA, Z.P.

Influence of temperature on the extraction of prepressed sunflower
cakes in the DS-70 extractor. Masl.-zhir. prom. 27 no.6:35-38
Je '61. (MIRA 14:6)

1. Voronezhskiy tekhnologicheskiy institut, Leningradskoye otdeleniye
(for Neshchadim). 2. Leningradskiy maslozhirovoy kombinat (for
Kurdyumov, Yedemskiy, Fadeyeva, Sokolov, Petrova, Mikhaylova, Sergeyeva).
(Sunflower oil)

KLIONSKIY, Ye.Ye., professor; SOKOLOV, A.I.; SHAKHOV, N.M.(Leningrad)

Changes in and characteristics of the course of tuberculosis in
the postwar period. Klin. med. 32 no.12:20-25 D '54. (MLRA 8:3)

1. Iz kliniki legochnogo tuberkuleza (zav.-prof. E.R.Klionskiy)
Leningradskogo sanitarno-gigiyenicheskogo med. instituta.
(TUBERCULOSIS, epidemiology
in Russia, postwar period)

PALASHEVSKAYA, Aleksandra Semenovna; ANISIMOV, M.G., inzh., retsenzent;
SOKOLOV, A.I., inzh., red.; BELEVSEVA, A.G., red. izd-va;
ORESHKINA, V.I., tekhn. red.

[Means for preventing industrial noise] Sredstva zashchity ot pro-
izvodstvennogo shuma. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz,
1961. 77 p. (MIRA 14:9)

(Noise)

SOKOLOV, A. I. Eng.

Irrigation

Mobile siphon water outlet for a temporary irrigation system. Gidr. i mel. 4 no., 1952

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Uncl.

1. SOKOLOV, A. I.
2. USSR (600)
4. Separators (Machines)
7. Device for inserting rivets in coiled separators, Podshipnik, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SOKOLOV, A.I., zamestitel' nachal'nika tsekha.

Adjusting the fuel feed. Energetik 1 no.4:11-12 S '53.

(MLRA 6:8)
(Furnaces)

BEL'SKIY, Vladimir Leonidovich; VLASOV, Ivan Petrovich; ZAYTSEV, Valentin Nikolayevich; KAN, Saveliy Nakhimovich, dokt. tekhn. nauk, prof.; KARNOZHITSKIY, Vladimir Pavlovich; KOTS, Veniamin Markovich; LIPOVSKIY, David Yevseyevich; BONIN, A.R., doktor tekhn. nauk, retsenzent; SOKOLOV, A.I., inzh., red.; KUZ'MIN, G.M., tekhn. red.

[Design of aircraft] Konstruktsiia letatel'nykh apparatov.
[By] V.L. Bel'skiy i dr. Moskva, Oborongiz, 1963. 708 p.
(MIRA 16:8)

(Aircraft)

SIDOROV, Orest Aleksandrovich; ISAKOV, P.K., doktor med. nauk, re-tsentz; SOKOLOV, A.I., inzh., red.; BARANOVSKIY, V.V., doktor med. nauk, red.; YUGANOV, Ye.M., kand. med. nauk, red.; ANTONOVA, S.D., red. izd-va; ORESHKINA, V.I., tekhn. red.

[Human physiological factors determining the arrangement of a machine control board] Fiziologicheskie faktory cheloveka, opredeliaiushchie komponovku upravleniya mashinoi. Moskva, Oborongiz, 362 p.
(Automatic control) (Human engineering)

SOKOLOV, A.I.

Spectrum analysis of the crankshaft oil for 2D100 diesel engines.
Khim. i tekhn. topl. i masel 9 no.2:70-72 F '64. (MIRA 17:4)

1. Tomskiy inzhenerno-stroitel'nyy institut.

SOKOLOV, A.I.

Growing ginseng on the northern boundary of the range (eastern slope of Sikhote-Alin'). Mat. k izuch. zhen'. i drug. lek. rast. Dal'. Vost. no. 5371-73 '63. (MIRA 17:8)

1. Sikhote-Alinskiy gosudarstvennyy zapovednik.

KIZUB, I.P.; SOKOLOV, A.I.

Efforts of the miners of the Anthracite Trust to fulfill the
seven-year plan ahead of time. Ugol' 39 no.5:21-24 My '64.
(MIRA 17:8)

1. Trust Antratsit.

5/230

80408
S/096/60/000/07/012/022
E194/E455

AUTHORS: Sherstyuk, A.N., Candidate of Technical Sciences,
Zaychenko, Ye.N., Ignat'yevskiy, Ye.A. and
Sokolov, A.I., Engineers

TITLE: An Investigation of Inlet Pipe Nozzles for Centrifugal
Compressors ²³

PERIODICAL: Teploenergetika, 1960, Nr 7, pp 56-59 (USSR)

ABSTRACT: The design of the inlet pipe influences the efficiency of a compressor in two ways. Firstly, losses in the inlet pipe itself directly reduce the efficiency of the compressor. More important, the shape of the inlet pipe influences the velocity distribution at inlet to the runner. If the distribution becomes unsuitable it can appreciably reduce the efficiency of the runner because the angles of attack at the inlet edge differ from the required values. Despite the practical importance of this question, little experimental work has been done upon it. Accordingly, the present work gives the results of the first stage of an investigation on axially-symmetrical inlet pipes. The tests were made not on a compressor but on a special rig, illustrated in Fig 1, ✓

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E194/E455**An Investigation of Inlet Pipe Nozzles for Centrifugal Compressors**

which allows the influence of the runner to be excluded. However, the outline of the duct beyond the inlet pipe is made the same as in a normal runner in order to obtain the required boundary conditions. Tests were taken on 8 types of inlet pipe, 5 being axial and 3 radial. Sketches of the inlet pipes are given in Fig 2. Combined data on the losses are also plotted in the graphs of Fig 2 in each case as functions of Reynolds number. Since Mach numbers were small (less than 0.35), the test results were worked out without allowing for compressibility. All the inlet pipes, except type OR-80-V, have very low loss factors because of the low values of Reynolds number and in all cases there is an appreciable reduction in the losses as the Reynolds number increases. As was to be expected, the axial inlet pipe with the least losses is that in which the ratio of the inlet diameter to the outlet section is greatest. The greatest losses were obtained with the cylindrical inlet pipes. The tests show the advantages of using short cowls over the runner inlet. Data on the velocity distribution in the discharge section of the

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An Investigation of Inlet Pipe Nozzles for Centrifugal Compressors

inlet pipe are also presented in Fig 2. The tests were made for various values of average speed up to 110 metres/sec but because of the very slight influence of the Reynolds number of the velocity distribution Fig 2 gives mean curves. In all cases, except those of the conical and cylindrical inlet tubes, there is marked distortion of the velocity distribution. If the runner were designed without allowing for this distortion, there could be substantial reduction in efficiency. In the axial inlet tubes, the velocity distribution depends on the length of the cowl. It is most uniform with a cowl of medium length and comparatively uniform with a cylindrical inlet tube; but cylindrical tubes are not to be recommended because of their inherently high losses. Conical inlet tubes give a uniform velocity field and have small losses. Thus they are the most suitable of the axial inlet tubes, provided they can be accommodated in the overall dimensions. Their main disadvantage is their great length which can be overcome by making a profile of the kind illustrated in Fig 3. The results

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E194/E455

An Investigation of Inlet Pipe Nozzles for Centrifugal Compressors with the radial and diagonal inlet tubes are of special interest because these types sometimes have to be used and it is obvious that the runner design must make appropriate allowance for changes in the velocity distribution. Moreover, inlet tubes of this kind should not be used at high peripheral speeds because the Mach number at the tips of the discharge edges of the runner blades becomes excessive. One of the tasks of the work was to evaluate the reliability of approximate methods of calculating the velocity in relation to the design of the inlet tubes. The point is that approximate methods of calculating on curved channels are sufficiently accurate only if the boundary of the channel changes curvature smoothly. In the case under consideration, the change in curvature is not smooth: from the experimental results and velocity data given in Fig 4, it is concluded that approximate methods of calculation are not sufficiently accurate. Differences between test and calculated velocities may be 10 to 20% and, therefore, in important cases the velocity should

Card 4/5

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E194/E455

An Investigation of Inlet Pipe Nozzles for Centrifugal Compressors *X*
be determined experimentally. There are 4 figures and
3 Soviet references.

ASSOCIATION: MEI - NAMI (Moscow Power Institute and NAMI)

Card 5/5

26,2120
S/143/61/000/002/003/006
A207/A126

AUTHORS: Sherstyuk, A. N., Candidate of Technical Sciences, Sokolov, A. I.,
Engineer

TITLE: Determination of the efficiency coefficient of the diffusion grids
from experimental data

PERIODICAL: Energetika, no. 2, 1961, 93 - 96

TEXT: The authors derive the formulae for determining the efficiency coefficient of a straight or radial diffusion grid from experimental data. Graphs are submitted which simplify the calculations considerably. Experiments were made on straight compressor grids (profile packages) which led to the method of determining the coefficient of losses described in this article. There are 2 figures and 2 Soviet-bloc references.

ASSOCIATION: Moskovskiy ordena Lenina energeticheskiy institut, kafedra parovykh i gazovukh turbin (The Moscow Order of Lenin Power Engineering Institute, Department of Steam and Gas Turbines)

SUBMITTED: February 26, 1960

Card 1/1

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L 22155-65 EPA/EAG(v)/EWT(l)/EWT(m)/EWP(k)/EPA(bb)-2/T-2/EWP(w)/EWP(f)/EWP(v) Pe-5/
Pf-4/Pw-4 AEDC(b)/AEDC(a)/ASDF-3/ASDP-3/AFTCA/AFTC(p) EM/WW
ACCESSION NR: AP5002201 S/0096/65/000/001/0043/0047

AUTHORS: Sherstyuk, A. N. (Candidate of technical sciences); Sokolov, A. I.
(Engineer); Lysenko, V. P. (Engineer)

3² 2⁴
TITLE: Investigation of axial-radial type compressors with blade diffusers 6

SOURCE: Teploenergetika, no. 1, 1965, 43-47

TOPIC TAGS: compressor, compressor blade, diffuser, compressor efficiency, blade size, blade shape/ N1 9 18 blade type, N 0 5 1 14 diffuser, N 0 5 4 18 diffuser, N 1 4 18 diffuser

ABSTRACT: Results of experimental investigations with blade diffuser-type compressors are reported. The purpose of the investigation was to study the effect of blade geometry on compressor efficiency. The flowing section of the compressor is given in Fig. 1 on the Enclosures. The details of the blade geometries (a total of 4 different types) are given in tabular form. All except N-1-9-18 blades were profiled. The compressor was operated at 25 000 r.p.m. and T = 293K. Its efficiency was defined by

$$\eta_a = \frac{\frac{e}{k} - 1}{\frac{T^*_K}{T^*_u} - 1},$$

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ACCESSION NR: AF5002201

where ϵ is the pressure ratio across the compressor and subscript H and K correspond to conditions before and after the compressor respectively. The type N-0.5-4-14 diffuser was investigated first by holding the number of blades $z = 25$ but varying the mounting angle. The results showed a maximum efficiency of 81% at $\alpha_{3H} = 16^\circ 20'$ (see Fig. 2 on the Enclosures). The second test was done by varying the number of blades. The optimum number was $z_H = 25-28$. The efficiency of the compressor with N-0.5-4-18 type diffuser was less than the N-0.5-4-14 diffuser by 1.5%. Analysis of the ratio a_4/a_3 for these two profiled diffusers (see Fig. 2) shows the limit $a_4/a_3 < 1.8-2.0$. Comparison of the efficiency of type N-1-4-18 compressor with variable b_3/b_2 showed almost no effect on the compressor efficiency in the range 1.12 to 0.87. Finally, the N-1-9-18 diffuser, which had the simplest blade geometry, showed an efficiency of only 0.7% less than the more complicated N-0.5-4-14 diffuser compressor. Orig. art. has: 8 figures, 1 formula, and 1 table.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of Heat Power Engineering)

SUBMITTED: 00

ENCL: 02

SUB CODE: PR

NO RRF Sov: 000

OTHER: 000

Card 2/4

54678-65 EPA/EWT(1)/EWP(f)/EWG(v)/T-2/EPA(bb)-2 Pe-5/Pw-4 NW

ACCESSION NR: AP5011577

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621.515

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31
B

AUTHOR: Sherstyuk, A. N. (Candidate of technical sciences, Docent);
Sokolov, A. I. (Engineer); Lysenko, V. P. (Engineer)

TITLE: Determining the optimal width of bladeless diffusers of a single-stage
centrifugal compressor

SOURCE: IVUZ. Energetika, no. 4, 1965, 58-65

TOPIC TAGS: compressor, centrifugal compressor, compressor diffuser

ABSTRACT: As the data available in the literature re the best width of a bladeless diffuser has not been definite, special experimental studies have been conducted to determine the optimal width of the diffuser in an axial-radial centrifugal compressor. On the strength of theoretical considerations (later confirmed by experiments), the optimal b_3/b_2 should lie within 0.8-0.85, where b_3 is the diffuser width and b_2 is the impeller width. Tests at 25000 rpm were conducted

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ACCESSION NR: AP5011577

with an 18-blade, 240-mm-impeller centrifugal compressor; $b_2 = 16$ mm. Five diffuser variants were tested. The test results permit drawing these conclusions: (1) Acceptance of the optimal b_3/b_2 enhances the compressor efficiency by 1.9% as compared to that with the conventional $b_3/b_2 = 1$; (2) The diffuser channel contraction should be made by deforming the front wall of the diffuser; (3) The gain in efficiency is attainable only if the channel outline in the meridian cross-section is smoothly (not sharply) curved. Orig. art. has: 6 figures and 19 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 12Mar64

ENCL: 00

SUB CODE: PR

NO REF SOV: 004

OTHER: 000

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Card 2/2

L 2575-66 EPA/EWT(1)/EWT(m)/EWP(w)/EWP(f)/EWP(r)/T-2/EWP(k)/ETC(m) WW/EM
ACCESSION NR: AP5019294 UR/0143/65/000/007/0102/0105
542.78

61
58
B
AUTHOR: Sherstyuk, A. N. (Candidate of technical sciences, Docent);
Sokolov, A. I. (Engineer); Lysenko, V. P. (Engineer)

44.37
TITLE: Investigation of the simple-contour blade diffusers of centrifugal compressors

23.44.57
SOURCE: IVUZ. Energetika, no. 7, 1965, 102-105

TOPIC TAGS: centrifugal compressor, diffuser performance

ABSTRACT: The results are reported of an experimental investigation of five diffuser variants having 23-26 blades and a_4/a_3 ratios of 1.74, 2.00, 2.25, and 2.45 (see Enclosure 1); the fifth blade variant had no bend in the inlet section. Blade width, 18 mm; impeller width, 16 mm. Compressor characteristics (η and η_a plotted against flow) for different blade inlet angles and a_4/a_3 ratios, with all speeds reduced to 25000 rpm and at 293K, are shown. In the first series

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L 2575-66

ACCESSION NR: AP5019294

of tests, with the 23-blade impeller, an appreciable effect of the blade angle ($15^{\circ}30'$ to 18°) on the maximum compressor efficiency (80.5 to 77.5%) was detected. The second series of tests, with the 26-blade impeller, revealed that the effect of a_4/a_3 (1.75 to 2.5) on the maximum compressor efficiency is insignificant (80 to 80.7%). It was also found that the efficiency of one of the tested simple wedge-shape diffusers (no. 2) is only lower by 1% than that of a complicated-shape aerodynamically "perfect" diffuser. Orig. art. has: 4 figures.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 03Sep64

ENCL: 01

SUB CODE: PR

NO REF SOV: 001

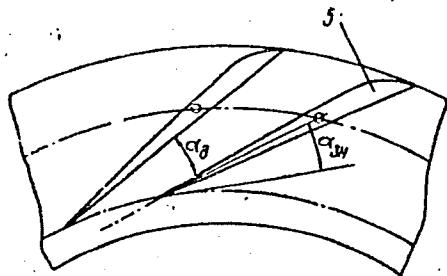
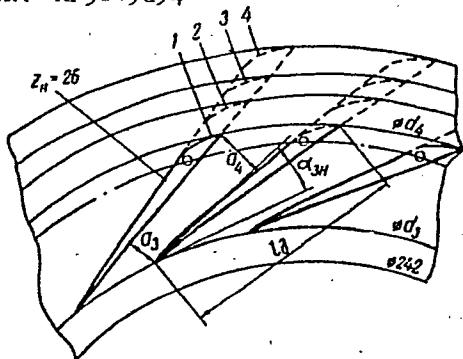
OTHER: 000

Card 2/3

L 2575-66

ACCESSION NR: AP5019294

ENCLOSURE: 01



Card ^m 393

Variants of tested diffusers

L 15964-66 EWT(d)/EWT(m)/EWP(w)/T/EWP(r)/EWP(k)/EWA(h)/ETC(m),61 RM/EM/DJ/WE
ACCT NR: AP6004173 (N) SOURCE CODE: UR/0096/66/000/002/0055/0059

AUTHOR: Sherstyuk, A.N. (Candidate of technical sciences); Sokolov, A.I. (Engineer) 60
8

ORG: Moscow Energetics Institute (Moskovskiy energeticheskiy institut)

TITLE: Meridional designing of bladeless diffusers //

SOURCE: Teploenergetika, no. 2, 1966, 55-59

TOPIC TAGS: turbine design, compressor stage, nozzle diffuser

ABSTRACT: The article applied experimental data to the investigation of single stage compressors of the axisymmetrical type with bladeless diffusers. The article first considers the entrance section of a bladeless diffuser. The characteristics of compressors with this type of diffuser are illustrated by a series of curves. It next considers the possibility of determining losses in the diffuser on the basis of a one dimensional hydraulic flow scheme, with the use of the Darcy formula, according to which the friction losses are equal to:

$$d\Delta L_{tp} = \lambda_{tp} \frac{c^2}{2d_*} ds,$$

where λ_{tp} is the friction coefficient; // d is the equivalent diameter;
Card 1/2

UDC: 542.78.533.6.001.5

L 15964-66

ACC NR: AP6004173

c is the velocity; and, ds is an element of length of the flow. Orig.
art. has: 3 formulas and 6 figures.

^{10/} SUB CODE: 13/ SUBM DATE: 00/ ORIG REF: 002/ SOV REF: 000/ OTH REF: 000

bvk
Card 2/2

L-22480-66 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l)/ETC(m)-6 IJP(c)
ACC NR: AP6007934 (A) SOURCE CODE: UR/0065/66/000/003/0057/0058

AUTHOR: Sokolov, A. I.; Shutalev, B. I.; Kel'dyushev, F. A. (Deceased) 39

ORG: none 14

TITLE: The effect of the quality of oil on the life of an internal combustion engine

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1966, 57-58

TOPIC TAGS: lubricant property, lubricant, internal combustion engine component

ABSTRACT: The authors note the absence of uniform criteria for assessing the point at which crankcase oil should be changed in internal combustion engines. At present, motor pools set their own criteria for oil changes. It is proposed that a central scientific research institute be set up for engine lubricant problems. It is concluded that there is a lack of communication between engine operators and those who analyze the quality of crankcase oil.

SUB CODE: 21/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 000

UDC: 665.521.5

Card 1/1 BK

2

BELYAYEV, V.S.; BORISENKO, L.D.; BORISENKO, E.V.; KORABLEV, A.A.;
KOLYSHKIN, O.M.; KUTLUNIN, V.A.; MALYAGIN, M.S.; SOKOLOV, A.I.;
CHUDAKOV, A.I.; ABRAMOV, V.I., otv.red.izd-va; BOLDYREVA, Z.A.,
tekhn.red.

[Manual for the coal mine mechanic] Spravochnik mekhanika
ugol'noi shakhty. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
gornomu delu, 1960. 612 p. (MIRA 13:12)
(Coal mining machinery)

KUPRIN, Aleksandr Ivanovich; SOKOLOV, A.I., otv. red.; SHOROKHOVA, A.V.,
red.izd-va; MINSKER, L.I., tekhn.red.

[Picks] Otdoinye molotki. Moskva, Gos. nauchno-tekhn. izd-vo lit-
ry po gornomu delu, 1961. 45 p. (MIRA 14:9)
(Boring machinery)

KUDRYASHOV, Yevgeniy Ivanovich; GRIGOR'YAN, Khoren Mikhajlovich; SOKOLOV,
A.I., otv. red.; ABARBARCHUK, F.I., red. izd-va; LOMILINA, L.N.,
tekhn. red.

[KTsT coal cutter-loader] Ugol'nyi kombain KTsT. Moskva, Gos.
nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 81 p.
(MIRA 14:10)

(Coal mining machinery)

SAFOKHIN, Mikhail Samsonovich; KATANOV, Boris Aleksandrovich; LOGUNOV, Nikolay Fedorovich; BARKANOV, Yevgeniy Ivanovich; SOKOLOV, A.I., otv. red.; ABARBARCHUK, F.I., red. izd-va; MINSKER, L.I., tekhn. red.

[Crosscutting and boring machines and drill bits] Buro-sboechnye mashiny i burovoyi instrument. [By] M.S.Safokhin i dr. Moskva, Gosgortekhizdat, 1962. 208 p. (MIRA 15:9)
(Boring machinery)

SOKOLOV, Anatoliy Ivanovich; SHOROKHOVA, A.V., red. izd-va; SHKLYAR,
S.Ya., tekhn. red.

[Cutter and cutter-loader operator] Mashinist vrubovoi i vrubovo-
navalochnoi mashiny. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po
gornomu delu, 1962. 245 p. (MIRA 15:3)
(Coal mining machinery)

BRUK, Ya.S.; SOKOLOV, A.I.

The KSTG coal mining combine. Biul. tekhn.-ekon. inform. Gos.
nauch.-issl. inst. nauch. i tekhn. inform. 17 no.2:9-10 '64.
(MIRA 17:6)

SOKOLOV, A.I.; BRUK, Ya.S.

Introducing the KN-3 equipment set. Biul.tekh.-ekon.inform.
Gos.nauch.-issl.inst.nauch. i tekhn.inform. 17 no. 5:17-19
My '64. (MIRA 17:6)

BRUK, Ya.S., SAMSONOV, G.N.; SOKOLOV, A.I.

Sets of equipment with the K-52M narrow-range cutter-loaders.
Bul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i
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TEREKHIN, Pavel Ivanovich; PAVLOV, Vasiliy Ivanovich; RYLOV, Gennadiy
Vyacheslavovich; ZAKHAROV, Yuriy Vasil'yevich; SOKOLOV, A. I.,
otv. red.

[Service life and norms for the expenditure of spare parts
for mining machinery; a handbook] Sroki sluzhby i normy ras-
khoda zapasnykh chastei dlia gornykh mashin; spravochnik.
Moskva, Nedra, 1965. 428 p. (MIRA 18:L)

SEARCHED

Spectrum analysis of Diesel lubricating oils from four elements.
Study MTR 18:8-136 '62.

Applying the method of spectrum analysis of lubricants in the
inspection of the condition of Diesel locomotive engines. *Tbid.* 139-
145

Methodology for the analysis of water content for the leading of
Diesel generators. *MTR 18:8* (MIRA 18:8)

Sokolov, A. I.

Cand Agricul Sci

Dissertation: "Influence of Maltese Combined Fodder on the Fattening of Pigs."

15 April 49

Moscow Veterinary Inst

SO Vecheryaya Moskva
Sum 71

ORLOVA, Yelena Nikolayevna; SOKOLOV, A.K., redaktor; MAZUROVA, A.F.,
tekhnicheskiy redaktor.

[Where the Ob flows; geographical outline for the general reader] Tam,
gde protekaet Ob'; popularnyi geograficheskiy ocherk. Izd. 2-e, ispr.
i dop. [Novosibirsk] Novosibirskoe knizhnoe izd-vo, 1954. 294 p.
(Ob'Valley--Description and travel) (MIRA 8:4)

SCROGGS, A. M.

SCROGGS, A. M. -- "Methods and Times of Preparing Fir Cuttings before Planting, and Their Biological Basis." Min Higher Education USSR. Tashkent Agricultural Inst. Stalinabad, 1945. (Dissertation for the Degree of Candidate in Agricultural Sciences)

CC: Knizhnaya Letopis', No 1, 1956

SOKOLOV, Aleksey Konstantinovich, kandidat sel'skokhozyaystvennykh nauk;
BENYUMOV, O.M., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Fattening pigs on suburban farms] Otkorm svinei v prigorodnykh zonakh. Moskva, Izd-vo "Znanie," 1957. 23 p. (Vsesoiuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znanii. Ser. 5, no.12) (MLRA 10:7)

(Swine--Feeding and feeding stuffs)

SOKOLOV, A.K.

Heterogeneity of fig shoots. Agrobiologija no.6:141-143 N-D '57.
(MIRA 10:12)

1. Tadzhikskiy nauchno-issledovatel'skiy institut sadovodstva, vino-
gradarstva i subtropicheskikh kul'tur im. I.V. Michurina, Stalinabad.
(Fig) (Plant cuttings) (Forest ecology)

SOKOLOV, A.K., kand. sel'skokhozyaystvennykh nauk.

Rooting of fig cuttings in relation to quality and time of cutting.
Agrobiologiya no.6:127-129 N-D '58. (MIRA 12:1)

1.Tadzhikskiy nauchno-issledovatel'skiy institut sadovodstva,
vinogradarstva i subtropicheskikh kul'tur, g. Stalinabad.
(Fig) (Plant cuttings)

VESELOV, Ye.A., prof.; VSYAKIKH, A.S., prof.; DENISOV, N.I., prof.;
GERCHIKOV, N.P., prof.; LASTOCHKIN, S.N., prof.; ALIKAYEV,
V.A., dots.; BESSARABOV, V.A., dots.; KALININ, V.I., dots.;
SOKOLOV, A.K., dots.; ZAVARSKIY, A.I., red.; DEYEVA, V.M.,
tekhn. red.

[Animal husbandry and veterinary hygiene] Zhivotnovodstvo i
zoogigiena. [By] E.A.Veselov i dr. Izd.2., perer. i dop.
Moskva, Sel'khozizdat, 1963. 451 p. (MIRA 17:2)

PERVUSHIN, Viktor Aleksandrovich; SOKOLOV, A.K., red.

[The problem of the differentiation of public labor productivity] Problema differentsiatsii prizveditel'nosti obshchestvennogo truda. Novosibirsk, Izd-vo Sibirskego otd-niia AN SSSR, 1963. 247 p. (MIRA 17:6)

"APPROVED FOR RELEASE: 08/25/2000

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... vlastnosti, když se vyskytuje v oblasti výroby výrobků. Azur. 1. glos.
(MBSA 18:10)

... vlastnosti, když se vyskytuje v oblasti výroby výrobků. Azur. 1. glos.
(MBSA 18:10)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651930009-7"

21(9)

SOV/89-6-5-10/33

AUTHORS: Zubarev, T. N., Sokolov, A. K.

TITLE: On the Calculation of Heat Generation in a Shut-down Reactor
(K raschetu teplovydeleniya v ostanovленном reaktore)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 5, pp 564-565 (USSR)

ABSTRACT: Owing to the presence of delayed neutrons heat continues to be generated also in a shut-off reactor. In order to determine this heat generation, it is necessary to solve the non-steady neutron diffusion equation. The dependence of the neutron flux ϕ in the shut-off reactor upon the time t is of very complicated character and numerical solution is difficult. A simplified formula is given, which describes heat generation very well:

$$\frac{\phi(t)}{\phi_0} \approx \frac{\alpha}{\alpha + \beta} \exp\left(-\frac{\alpha + \beta}{T} t\right) + \sum_{i=1}^m \frac{\beta_i}{\alpha + \beta} \exp\left(-\frac{\alpha}{\alpha + \beta} \lambda_i t\right)$$
$$\beta = \sum_{i=1}^m \beta_i$$

Card 1/3 where $\phi(t)$ = neutron flux as function of the time t ,

SOV/89-6-5-10/33

On the Calculation of Heat Generation in a Shut-down Reactor

ϕ_0 = neutron flux at the time of shutting off the reactor,
 q = reactivity of the time of shutting off,
 β = total yield of delayed neutrons,
 β_i = fraction of delayed neutrons of the i -th group,
 T = life-time of neutrons in the reactor,
 λ_i = decay constant of the nuclear fragments of the i -th group,
 m = number of groups of delayed neutrons.

Calculation by means of the formula given is comparatively simple. The values for heat development are obtained with sufficient accuracy for all negative reactivities. In the case of negative reactivity $|q| > 0.03$ calculation results obtained by using the non-steady neutron diffusion equation practically coincide with those obtained by the above simplified method. There are 1 figure and 1 reference.

Card 2/3

L 9054-65 EWC(j)/EWA(k)/FED/EWT(1)/EWT(m)/EEB(k)-2/EEC(t)/T/EEC(b)-2/
EMP(k)/EWA(h)/EWA(m)-2 PT-4/PO-4/PT-4/Peb/PI-4/PI-4 IMP(c)/ESD(t)/ASD(d)/
RAEM(t)/ESD/ASD(a)-5/ESD(gs)/AFETR/AFEL/RAEM(a)/SSD WC4H
ACCESSION NR: AP4044926 S/0181/64/006/009/2590/2598

AUTHOR: Sokolov, A. K.; Zubarev, T. N.

TITLE: Time variation in the intensity and energy of stimulated ^B emission of a ruby laser with spherical mirrors

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2590-2598

TOPIC TAGS: ruby laser, spherical mirror resonator, laser, ruby laser energy, stimulated emission instability, stimulated emission

ABSTRACT: Spherical mirrors were used in order to decrease the probability of instability during the rise of stimulated emission pulses of a ruby laser. The mirrors were placed \approx 800 mm from each other; their radii of curvature was \approx 410 mm. Observations have shown that at the beginning of laser action a pulse represents a regular damped oscillation about an equilibrium value for a given power of the pump lamp. The absence of instability in the development of light pulses enabled the authors to compute numerically the intensity of stimulated emission as a function of time by means of kinetic equations. The experimental and computed data agree satisfactorily and a formula for determining the energy of

Card 1/2

L 9054-65

ACCESSION NR: AP4044926

stimulated emission was developed. The emitted energy of a ruby laser, computed from this formula, was ~ 0.3 joules, a value which favorably compares with the experimental one, namely ~ 0.4 joules. In a series of experiments, the energy of stimulated emission was investigated as a function of distance between mirrors. It was found that the energy of a pulse remained practically unchanged when the distance between mirrors was changed from ~ 500 to ~ 820 mm, then decreased monotonically with further increases in this distance. "The authors are grateful to M. M. Dubrovin and O. P. Fomin for their help in experiments, and to Z. D. Dobrokhotova and G. S. Isakova for their help in numerical computations. The authors take further opportunity to express thanks to A. M. Leontovich and A. N. Orayevskiy for their useful remarks which were incorporated in this work prior to publishing." Orig. art. has: 15 formulas and 5 figures.

ASSOCIATION: none

SUBMITTED: 18Feb64

ATD PRESS: 3110

ENCL: 00

SUB CODE: EC

NO REP Sov: 000

OTHER: 004

Card

2/2

L 13976-65 EWG(j)/EWA(k)/FBD/EWP(e)/EWT(l)/EWT(m)/EEC(k)-2/T/EEC(t)/EWP(k)/
EEC(b)-2/EWA(m)-2/EWA(h) Pn-4/Po-4/Pf-4/Pi-4/P1-4/Peb AS(mp)-2/AFETR/BSD/
ASD(a)-5/APGC(b)/RAEM(a)/ESD(gs)/ESD(t)/IJP(c) WG/WH

ACCESSION NR: AP4047320

S/0020/64/158/004/0824/0826

AUTHORS: Konyukhov, V. K.; Kulevskiy, L. A.; Sokolov, A. K.; Prokhorov, A. M. (Corresponding member AN SSSR)

TITLE: Spectrum of ruby ¹⁵ laser with external spherical mirrors

SOURCE: AN SSSR. Doklady*, v. 158, no. 4, 1964, 824-826

TOPIC TAGS: ruby laser, ruby laser oscillation, laser cavity, laser mirror system

ABSTRACT: The emission spectrum of a ruby laser with external spherical mirrors, operating in undamped and quasi-stationary generation modes was investigated. A ruby crystal 12 mm in diameter and 120 mm long was used, with its optical axis perpendicular to the geometrical axis of the crystal. The spherical mirrors were 500 in radius and were set at a distance of either 100 mm (concentric cavity) or 500 mm (confocal cavity). The spectrum was time-swept

Card 1/2

L 13976-65

ACCESSION NR: AP4047320

and investigated with a Fabry-Perot interferometer. Unlike a ruby laser with flat mirrors, where several spectral components with randomly varying frequencies are generated simultaneously, a laser with external spherical mirrors emits a single component with width not larger than 0.1 cm^{-1} and with a frequency variation that consists of abrupt jumps imposed on a monotonic decrease. This is attributed to changes in the optical properties of the ruby, due to the increase in its temperatures during the laser operation. Other factors, such as internal stresses, may also influence the frequency variation. "The authors thank T. N. Zubarev for a useful discussion of the work." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 23May64

ENCL: 00

SUB CODE: EC, OP

NR REF SOV: 003

OTHER: 009

Card 2/2

L 11868-65 EWG(j)/EWA(k)/FBD/EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EEC(t)/T/EEC(b)-2/
EWP(k)/EWA(m)-2/EWA(h) Pf-4/Pi-4/P1-4/Pn-4/Po-4/Peb IJP(c)/ASD(a)-5/BSD/
AFWL/SSD/AFETR/AFTC(p)/RAEM(a)/ESD(gs)/ESD(t) WH/WG S/0020/64/159/003/0539/0540
ACCESSION NR: AP4049917

AUTHOR: Zubarev, T. N.; Sokolov, A. K.

TITLE: Time dependence of stimulated emission in a ruby laser with
spherical mirrors 15 25

SOURCE: AN SSSR. Doklady*, v. 159, no. 3, 1964, 539-540

TOPIC TAGS: laser, ruby laser, spherical mirror laser, laser emission
intensity

ABSTRACT: The time dependence of stimulated emission from a ruby laser
at different distances between the mirrors and with different pump
powers was experimentally investigated. The nontransparent spherical
mirrors had a radius of curvature of 400 mm. The ruby crystal, which
was 120 mm long and 12 mm in diameter, had a 0.05 per cent concentra-
tion of chromium ions. A xenon spiral lamp with a pulse energy of
about 7.5 kj and a pulse duration of about 1 msec was used for pumping.
The capacitor bank had a capacitance of 300 to 1200 μ f. The initial
voltage on the capacitor bank varied from 2.5 to 6 kv. Experiments
were performed at room temperature. Regular oscillations were observed

Card 1/3

L 14868-65

ACCESSION NR: AP4049917

at distances between the mirrors not exceeding twice their radius of curvature. At larger distances discontinuities in regular oscillations appeared. Further increases in the distance made the oscillations irregular. The effect of varying the pumping energy on the time dependence of the emission intensity was further investigated under conditions of regular oscillations. A transition period which was characterized by regular damped oscillations of the emission intensity developed at the start of generation. The duration of the transition period decreased with an increase in the initial pumping pulse. A quasi-stationary generation cycle established after the transition period was characterized by the presence of a fairly steady component modulated by regular undamped oscillations. A different result was obtained at relatively low pumping energies. The emission in this case took the form of a regular sequence of light pulses (undamped oscillations) virtually free of the steady component. The frequency of the undamped oscillations diminished, as before, with diminishing pumping energy. The transition within one flash from the quasi-stationary regime to that of high-amplitude, undamped oscillations could be observed when the flash duration was sufficiently extended. Orig. art. has: 4 figures.

Card 2/3

L 14868-65 /
ACCESSION NR: AP4049917

ASSOCIATION: none

SUBMITTED: 22Jan64

ENCL: 00

SUB CODE: EC

NO REF SOV: 001

OTHER: 003

ATD PRESS: 3141

Card 3/3

L 1122-66 EWA(k)/FBD/EWT(1)/EEC(k)-2/T/EWP(k)/EWA(m)-2/EWA(h) SCTB/IJP(c) WG

ACCESSION NR: AP5021376

UR/0120/65/000/004/0239/0241
621.378.325

AUTHOR: Sokolov, A. K.; Fomin, O. P.

26
B

TITLE: Demountable pulse lamp for a laser

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 239-241

TOPIC TAGS: laser pumping, laser lamp

ABSTRACT: The design characteristics of a pulsed laser lamp consisting of four individual cylindrical lamps mounted around the glass tube containing the active medium are described. The block diagram of the cylindrical lamp is shown in Fig. 1 of the Enclosure and the circuit diagram, in Fig. 2. The lamp has the following characteristics: capacitance of power supply capacitors, 4 x 600 μ f; maximum voltage across a capacitor, 2.5 kv; minimum firing voltage, 0.6 kv; maximum flash energy, 7.5 kJ; firing-electrode a-c voltage, 30 kv; flash duration, 100 μ sec.

Orig. art. has: 5 figures.

[JR]

ASSOCIATION: Institut atomnoy energii GKAE, Moscow (Institute of Atomic Energy, GKAE)

Card 1/4

L 1122-66

ACCESSION NR: AP5021376

SUBMITTED: 14Feb64

ENCL: 02

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4097

Card 2/4

L 1422-66
ACCESSION NR: AP5021376

ENCLOSURE: 01

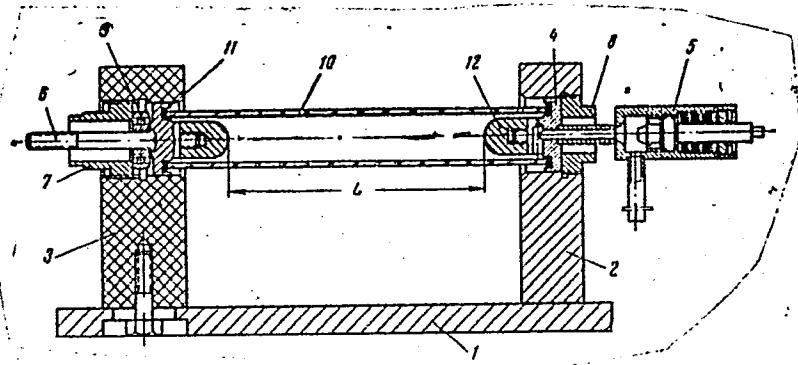


Fig. 1. Structure of the demountable cylindrical lamp

1 - Metal base; 2 - metal electrode holder; 3 - insulating electrode holder; 4 - stainless steel electrode; 5 - xenon pumping valve; 6 - high-voltage electrodes; 7, 8 - lugs; 9 - bearing for vacuum seal between the quartz tube and electrodes; 10 - quartz tube.

Card 3/4

L 1422-66

ACCESSION NR: AP5021376

ENCLOSURE: 02

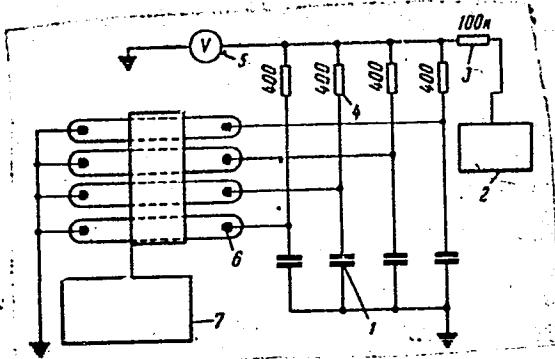


Fig. 2. Circuit diagram of the lamp

1 - Power-supply capacitors; 2 - high-voltage rectifier; 3 - resistor for limiting charging current; 4 - resistors; 5 - volt meter; 6 - tubes; 7 - inductive firing unit.

Card 44 DP

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.; SOKOLOV, A.Kh.;
SIRCHENKO, I.P.

I.S. Rod'kin's book "Ventilation in the course of mine building."
Shakht. stroi. 5 no.8:30 Ag '61. (MIRA 16:7)

1. Trest Kadiyevpodzemshakhtstroy (for Velikiy, Novikov).
2. Shakhta Mariya-Glubokaya (for Sokolov). 3. Shakhta
Krasnopol'ye-Glubokaya (for Sirchenko).
(Mine ventilation)

SOKOLOV, A.L.

Ice drifts in the Arctic basin and a change in the ice conditions
on the course of the Northern Sea Route. Probl.Arkt.i Antarkt.
no.11:81-89 '62. (MIRA 16:2)
(Arctic Ocean--Drift)

SOKOLOV, A.M., (Kiev).

Meeting of inventors and innovators. Poligr. proiz. 4:8-10 Ap '53.
(MLEA 6:6)
(Printing industry)

SOKOLOV, A.M.

Distributing apparatus sets. Elek.sta. 25 no.3:60 Mr '54. (MIRA 7:6)

1. Glavnyy inzhener zavoda "Elektroshchit".
(Electric switchgear)

SOKOLOV, A. M.

Cand Tech Sci - (diss) "Portable water-sprayers and the automation of water calculations for irrigated areas." Novocherkassk, 1961. 26 pp with diagrams; (Ministry of Agriculture RSFSR, Novocherkassk Land Reclamation Engineering Inst "NIMI"); 150 copies; price not given; (KL, 5-61 sup, 193)

SOKOLOV, A.M., inzh.; CHUVAYEV, Yu.P., inzh.

New design of mortar sprayers. Stroi. i dor. mashinostr. 4 no.3:
16-17 Mr '59. (MIRA 12:4)
(Building machinery)

KVARTENKO, A.S., inzh.; KALISTOV, I.A., inzh.; SOKOLOV, A.M., inzh.; CHUVAYEV, Yu.P., inzh.

The S-573 unit for the pneumatic-tube transportation of concrete mixes. Stroi. i dor. mashinostr. 4 no. 11:16-17 N '59 (MIRA 13:3)
(Pneumatic-tube transportation) (Concrete)

MALKIN, L.Z.; ALKHAZOV, I.D.; SOKOLOV, A.M.

Unit for preparing thin homogeneous extended radioactive sources.
Radiokhimiia 6 no.2:258-259 '64.
(MIRA 17:6)

I 4155-65 EWT(d)/EPA(s)-2/EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(z)/EWP(b)/EWP(l)/EWA(c) Pf-4 MJW/JD/HN/JT/JXT(CZ)
ACCESSION NR: AP5001283 S/0193/64/000/012/0023/0025 38
B

AUTHOR: Sokolov, A. M.

TITLE: Electroslag welding of annular seams of thick walled apparatus

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 12, 1964, 23-25

TOPIC TAGS: electroslag welding, welding technique

ABSTRACT: A technique of electroslag welding annular joints of apparatus having 40-56 mm thick walls of 16GS (ZN) steel was developed at the Institute of Welding (Institut elektrosvarki im. Ye. O. Patona i VNIITmash Nizhne-Volzhskogo sovarkhoza). The apparatus comprised a welding stand, a dolly with the control case and automatic machine (A-535M) for running the electroslag welding, and equipment for forming seams inside the apparatus to be welded. Welding was under the following conditions: direct current of reversible polarity; SB-10G2 wire and AN-8 flux; the electrode feed rate of 180-200 m/hr at 850-900 amp and 50 v was increased to 500-550 m hr under 44-46 v while building up the

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slag bath; depth of slag bath, 60 mm; electrode gap 60 mm; electrode exposure time 6 sec; vibration amplitude 25-28 mm. About 1 meter from the end of the seam the feed rate was reduced to 180-200 m/hr and voltage was increased to 50 v; the amplitude of the electrode vibration was reduced and then the vibration mechanism was shut off. The place where the seam had been closed was then subjected to air-arc planing and welded with UONI-13/55 electrodes. This technique eliminated the need for high temperature normalizing and reduced labor and material costs. The apparatus thus welded was used at -30 to +200 C under 60 atm pressure in the petroleum industry. Orig. art. has: 1 figure.

ASSOCIATION: None

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ENCL: 00

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